

CLAIM AMENDMENTS

1 1. (original) A container system for transporting and
2 storing highly radioactive materials, characterized in that it
3 comprises an outer container (1) holding at least one inner con-
4 tainer (2) that itself holds the radioactive material.

1 2. (original) The container system according to claim
2 1, characterized in that the inner container (2) is supported by
3 springs in the outer container (1).

1 3. (currently amended) The container system according
2 to claim 1 [[or 2]], characterized in that the outer container is
3 comprised of a cylinder (4) having a side wall (4) of reinforces
4 prestressed spun concrete with for example boron oxide as an
5 additional neutron absorber.

1 4. (currently amended) The container system according
2 to ~~claims 1 to~~ claim 3, characterized in that the outer container
3 has a cover (6) and a floor (7) that are made of reinforced con-
4 crete with the addition of for example boron oxide as an additional
5 neutron absorber.

1 5. (original) The container system according to claim 4
2 characterized in that the cover (6) and the floor (7) are made of

3 prestressed reinforced spun concrete with the addition of for
4 example boron oxide as an additional neutron absorber.

1 6. (currently amended) The container system according
2 to ~~claims 1 to~~ claim 5 that springs (10 and 11) bear against an
3 inner surface (9) of the side wall (5), of the cover (6), and of
4 the floor (7).

1 7. (currently amended) The container system according
2 to ~~claims 1 to~~ claim 6, characterized in that the springs (10 and
3 11) are provided with shock absorbers.

1 8. (currently amended) The container system according
2 to ~~claims 1 to~~ claim 7, characterized in that the springs (11)
3 bearing on the cover (6) and the floor (7) have a long spring
4 travel and a high spring constant.

1 9. (currently amended) The container system according
2 to ~~claims 1 to~~ claim 8, characterized in that the springs (10)
3 bearing on the side wall (5) have a short spring travel and a low
4 spring constant.

1 10. (currently amended) The container system according
2 to ~~claims 1 to~~ claim 9, characterized in that springs (10) bearing

3 on the side wall (5) are distributed rotation symmetrically about
4 its inner surface (9).

1 11. (currently amended) The container system according
2 ~~to claims 1 to~~ claim 10, characterized in that a plurality of the
3 springs (10) are distributed in a row longitudinally of the side
4 wall (5).

1 12. (currently amended) The container system according
2 ~~to claims 1 to~~ claim 11, characterized in that each spring (10 and
3 11) is provided with a prestressing device that prestresses it
4 outwardly toward the outer container (1).

1 13. (currently amended) The container system according
2 ~~to claims 1 to~~ claim 12, characterized in that the prestressing
3 devices are threaded bolts that extend through the side wall (5),
4 the cover (6) and the floor (7) and engage with an internal thread
5 in a bracing washer that the springs (10 and 11) bear inward on.

1 14. (currently amended) The container system according
2 ~~to claims 1 to~~ claim 13, characterized in that the inner container
3 (2) is generally completely enclosed in an intermediate container
4 (3) having a side wall (12), a cover (13) and a floor (14) against
5 which the springs (10 and 11) are braced.

1 15. (currently amended) The container system according
2 ~~to claims 1 to~~ claim 14, characterized in that the side wall (12)
3 of the intermediate container (3) is made of prestressed reinforced
4 spun concrete with the addition of for example boron oxide as an
5 additional neutron absorber.

1 16. (currently amended) The container system according
2 ~~to claims 1 to~~ claim 15 characterized in that the cover (13) and
3 the floor (14) of the intermediate container (3) is made of rein-
4 forced concrete with the addition of for example boron oxide as an
5 additional neutron absorber.

1 17. (currently amended) The container system according
2 ~~to claims 1 to~~ claim 15 characterized in that the cover (13) and
3 the floor (14) of the intermediate container (3) is made of pre-
4 stressed reinforced spun concrete with the addition of for example
5 boron oxide as an additional neutron absorber.

1 18. (currently amended) The container system according
2 ~~to claims 1 to~~ claim 17, side-wall, cover, and floor inner surfaces
3 (15, 16, and 17) of the intermediate container (3) have respective
4 polyethylene layers (18, 19, and 20) for moderating neutrons
5 generated by the radioactive material inside the inner container
6 (2).

1 19. (currently amended) The container system according
2 ~~to claims 1 to~~ claim 18, characterized in that the inner container
3 (2) is double-walled and has between the inner wall (21) and outer
4 wall (22) of its side wall (23), of its cover (24), and of its
5 floor (25) spaces (26, 27, and 28) a gamma- and neutron-ray ab-
6 sorber (29).

1 20. (currently amended) The container system according
2 ~~to claims 1 to~~ claim 19, characterized in that the absorber (29)
3 generally fully surrounds an inner chamber (30) of the inner
4 container (2).

1 21. (currently amended) The container system according
2 ~~to claims 1 to~~ claim 20, characterized in that the absorber is
3 comprised of depleted uranium (uranium oxide) or a similarly
4 effective material.

1 22. (currently amended) The container system according
2 ~~to claims 1 to~~ claim 21, characterized in that the inner container
3 is comprised of stainless steel with contamination-reducing smooth
4 surfaces.

1 23. (currently amended) The container system according
2 ~~to claims 1 to~~ claim 22, characterized in that the inner container
3 (2) has on an upper surface of its cover (24) an annular flange

4 (24) that projects outward from the inner container (2) and that is
5 of the same outer diameter as an outer surface of the side wall
6 (12) of the intermediate container (3).

1 24. (currently amended) The container system according
2 ~~to claims 1 to~~ claim 23, characterized in that the inner container
3 (2) has a mounting ring (37) closing an annular gap between the
4 inside wall (21) and the outer wall (22) at the annular flange (34)
5 and formed with threaded bores (38) receiving mounting bolts (39)
6 that traverse and secure the cover (24) of the inner container (2).

1 25. (currently amended) The container system according
2 ~~to claims 1 to~~ claim 24, characterized in that above the cover (24)
3 of the inner container (2) there is an intermediate cover (40) that
4 is secured by threaded bolts (41) to the annular flange (34) and
5 that is covered on its lower face (42) by a layer of polyethylene
6 (13).

1 26. (currently amended) The container system according
2 ~~to claims 1 to~~ claim 25, characterized in that the side walls (5
3 and 12), the covers (6 and 13), and the floors (7 and 14) of the
4 outer container (1) and of the intermediate container (3) are
5 provided with longitudinally throughgoing tubes (43 and 44) in
6 which are provided mounting elements (45 and 46) for prestressing

7 and closing the outer container (1) and the intermediate container
8 (3).

1 27. (currently amended) The container system according
2 ~~to claims 1 to~~ claim 26, characterized in that the mounting ele-
3 ments (45 and 46) are tie rods.

1 28. (currently amended) The container system according
2 ~~to claims 1 to~~ claim 27, characterized in that the outer containers
3 (1) is provided adjacent its floor (7) with a plurality of air-
4 inlet openings (47) and near its cover (6) with a plurality of air-
5 outlet openings (48) distributed radially symmetrically over the
6 side wall (5).

1 29. (currently amended) The container system according
2 ~~to claims 1 to~~ claim 28, characterized in that the air-inlet
3 openings (47) and the air-outlet openings (48) are closable.

1 30. (currently amended) The container system according
2 ~~to claims 1 to~~ claim 13 ~~and 27 to 29~~, characterized in that the
3 inner container (2) contained in the outer container (1) is a
4 standard Castor cask (49).